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### **INTRODUCTION**

Since 1989, despite voluminous and incontrovertible scientific evidence demonstrating the extraordinary and swift effectiveness of the non-toxic first-response, oil spill cleanup method called OSE II, the product has been arbitrarily frozen out of the US navigable water clean up business by the US EPA, NOAA and other federal agencies represented in the EPA's Regional Response Team (RRT). This group has created a framework of conditions that support an existing monopoly for the Exxon Corporation's product Corexit 9527a. In May of 2010, when the EPA demanded that BP find another cleanup method for the Deepwater Horizon than Corexit 9527a, the RRT approved in lightening speed (within 24 hours) BP's requested substitute - Exxon's other product, Corexit 9500, without regard to its toxic adverse effects, and/or its lack of value to the BP Deepwater Horizon oil cleanup response.

The use of the two Corexit products in this disaster has, predictably per their labels and official Material Safety Data Sheets, exposed them to the broad public as being the horrifically toxic chemicals that they are, and this fact has been underscored by the test results of numerous independent scientists.

### **EPA/NOAA RATIONALIZATIONS**

OSE II (the enzymatic product with no microbes in it which is already on the official EPA National Contingency Plan for oil spill cleanup) has had repeated requests from the injured Gulf States for its implementation as a non-toxic, first-response cleanup method, but the EPA/NOAA have ignored these requests, and/or used false, non-scientific justifications for arbitrarily stopping the use of this product, which is the world's most experienced and effective, hydrocarbon-based, cleanup tool.

The first specious reason for not allowing OSE II to be implemented in the Deepwater Horizon disaster was expressed by Sam Coleman (Director of the

Superfund Division, EPA Region 6, and the EPA's RRT6 representative). Despite the fact that as early as 1996 the EPA insisted that OSEI Corporation prove it was not a sinking agent, and the subsequent test results are in EPA's files that clearly demonstrate that OSE II operates exactly opposite to a dispersant and/or sinking agent, Coleman stated that they "were worried OSE II would sink oil," necessitating the repetitive process of explaining, once again, how groundless his concerns were.

Additionally, as recently as March of 2011, tests on OSE II were completed by BP's Dr. Tsao at LSU laboratories, while in close communication with the members of RRT 6, once again proving to the EPA and Sam Coleman that OSE II does not sink oil.

The next justification the EPA/NOAA used to prevent OSE II's implementation was that they "were worried that OSE II would grow too many indigenous bacteria and that this would somehow create a bigger problem after the oil was digested and broken down." It is important to note that NOAA is the scientific advisor to the EPA. It was astonishing to receive this statement by a scientist from NOAA because it shows a complete ignorance of the most basic factors of bioremediation and microbiological processes. Most first-year biology students learn that any eco system can only sustain that amount of life supported by readily available food. Once the food is depleted, that eco system will no longer sustain the same amount of life, and, in the example of bio-stimulation of indigenous microbes, the surplus of microbes simply die back to their normal background levels after the oil is digested, with no negative side effects to the environment of any kind.

## ARE EPA/NOAA OFFICIALS ACTUALLY LOOKING FOR NON-TOXIC SOLUTONS?

EPA/NOAA are responsible for protecting the environment. They have purportedly been in the process of diligently researching the various potentially viable non-toxic solutions for cleaning up the oil blowout. All the necessary information from tests done on OSE II at the request of the EPA over the past 21 years, plus the current tests completed in March by BP at LSU, plus information regarding the over 16,000 real-life oil spill cleanups successfully performed by OSE II, with not one negative side effect ever reported, have been provided to the EPA/NOAA as a part of this allegedly sincere vetting process. Had the EPA/NOAA honestly reviewed the OSE II information, including pictures of the over 5,000 gallon significant crude oil

spill cleaned up with OSE II for Texaco in a closed, large pond, they would have seen the fact that OSE II causes the oil to float until it is converted to water and CO2. They would also have seen the natural process of steps that occur when OSE II is applied to an oiled environment: 1) bacteria grow on the oil's surface, 2) clump up as the food source diminishes, and then 3) return to background levels once the crude oil/food source had been depleted. They would have also seen that the use of OSE II does not harm the flora and fauna, and, in fact, protects the marsh grass, birds, fish, turtles, snakes, and the rest of marine and wildlife, and prevents migratory birds from getting coated with oil and dying from exposure. See link <a href="http://osei.us/photoalbums/crude-oil-spill-cleanup">http://osei.us/photoalbums/crude-oil-spill-cleanup</a>

It is very apparent that either these officials did not bother reviewing OSE II's easily-accessed public information on our web site which we have referred them to repeatedly in order to help them make the best clean up response decisions, or that, if they did review the information, they have entirely other agendas than genuinely wanting to clean up the Deepwater Horizon disaster.

### ANOTHER UNWARRANTED CONCERN

Another verbal pretext that was given to Sanford Phillips of LA DEQ to justify why EPA/NOAA was refusing to allow LA DEQ to implement OSE II for this disaster was stated by Charlie Henry of NOAA. Henry is NOAA's Lead Scientific Support Coordinator for the Deepwater Horizon Response. Henry made a blanket statement that "no product will be used that contains surfactants". Again, this was a strikingly uneducated statement coming from a NOAA official as it showed complete ignorance of the predictable processes Mother Nature utilizes to clean up an oil spill. Surfactants are a natural part of that process. I subsequently thought I had put this matter to rest with an explanatory letter to Charlie Henry, which I copied to the other senior EPA and RRT officials; however, as though that letter was never received or read, DOC and NOAA officials, once again, made the same groundless statement several months later as their most recent justification for preventing the implementation of OSE II. The toxicity test results the EPA has for OSE II (of which, a predominant number were performed by the EPA themselves), showing that OSE II, as a product, is completely non-toxic, proves that the type of surfactant it contains is of no concern. Despite this, the repeated presentation of the pertinent scientific facts related to this have been ignored by EPA/NOAA.

Letter attached.

On the other hand, BP's Dr. Tsao relayed to us that the RRT claimed that they agree with the use of bioremediation technology, "as long as the products don't contain a surfactant." Of note is that *Corexit contains 4 different chemical surfactants*. Apparently, however, that was not an issue of concern when they rushed through the permits for its use despite the fact that one needs only to read Corexit's label and MSDS sheets to know that it is lethally toxic to people, flora and fauna.

Again, the unfounded justification for not allowing OSE II to participate in the BP/LSU field demonstration that was to occur once products had proven themselves in the LSU lab as being potentially viable solutions, was that it contains a chemical surfactant. If those responsible for vetting alternative, non-toxic solutions to cleaning up the Deepwater Horizon disaster have actually read any of the documentation we supplied, or seen any of the toxicity tests easily accessed on OSEI's website under the "Technical Library" section, then they know that OSE II is completely non toxic.

For those who have not read it, and/or are interested, the results of 14 different toxicity tests are attached to this letter: 10 salt water species, 3 fresh water species, and one water flea. They show, overwhelmingly, that OSE II is safe for marine species, the environment and people. So, again, the fact that OSE II has a surfactant in it is completely inconsequential as far as the safety and effectiveness of implementing it. Using this as an excuse to justify preventing its implementation is scientifically illogical.

The chemicals that 40 CFR outlaws and which cause a product to be unsafe and prevent it from being approved for inclusion on the EPA's NCP list, are chlorinated hydrocarbons and trace elements. OSE II does not have any of these and it has been on the NCP list for many years. In addition to voluminous scientific test proof, it has been proven empirically to be nontoxic to marine species and humans since, as a demonstration, OSEI staff have actually ingested it on TV and it has been utilized by the US Navy in areas with abundant marine life nearby, including dolphins and whales, and had absolutely no negative impacts on any species.

The EPA NCP testing has substantiated that OSE II has a defined endpoint: it converts oil to CO2 and water. BP's recent LSU test on the combination of Louisiana sweet crude oil mixed with Corexit dispersant proved OSE II was the most effective product at remediating the PAH's in the oil, which are the most toxic and persistent components of crude oil per the US EPA.

The object of any spill response is to lessen the toxicity to the environment in order for living organisms to be able to survive. The desired result would be to clean up 100% of a spill, and OSE II has proven it does exactly that over 16,000 times on both fresh and salt water spills, and wherever hydrocarbon-based material is spilled. No other product in the world has the first response capabilities with the swift and financially viable desired outcomes of OSE II: it is able to address 100% of the spill, limit a spill's environmental impact, protect natural resources, and return the area involved to pre-spill conditions in usually less than 2 weeks, once it comes in contact with the oil, and not usually more than 4 weeks. OSE II is a *sole source* clean up product, and never has there been a more vitally important time to get it implemented then on the massively catastrophic situation that currently exists in the Gulf of Mexico as a result of the on-going Deepwater Horizon disaster.

There is no legitimate scientific reason not to use OSE II immediately.

### EPA IGNORES NOAA'S ALREADY ESTABLISHED GUIDELINES

It is important to note that the NOAA selection guide, established by the RRTs 3 and 4 in cooperation with the NRT and paid for by the US Coast Guard, provides useful tools in deciding which product(s) to use for the cleanup of an oil spill. These guidelines are based on toxicity and ability.

Clearly stated on page VIII under "Basic Reasoning" are the following parameters:

### 1. Decide if applied technology might provide value.

When one looks at this guideline in relationship to the choice of chemical dispersants used in the Deepwater Horizon, neither of the Corexits added anything of value; in fact, they exacerbated the problems of the BP spill by adding substantially more toxicity to the already toxic situation caused by the oil, and spread it exponentially further throughout the marine environment. On the other hand, when looking at whether or not OSE II, if applied, provides value, one finds that it has a <u>substantiated end point</u> of CO2 and water and prevents oil from unnecessarily contaminating additional areas (the water column below the surface, the seabed, the beaches and the marine life/seafood). The combination of the latter with the fact that it is nontoxic, gives OSE II considerable value.

2. Decide if the OSC has the authority to use it within its useful time frame.

This specifically pertains to both Corexits since they cannot be used on weathered oil, and, therefore, must be applied to the oil within a matter of a couple of days or less, after it has released into the environment.

On the other hand, OSE II has no time frame limits and can be used as a first-response tool *and* at any point after oil has escaped into the environment. It works equally well whether it is fresh oil or weathered. There are no time limitations whatsoever. Additionally, because it is already on the NCP list, it can be legally used by the OSC immediately.

### 3. If so, can it be here in time?

The OSEI Corporation keeps enough OSE II on hand to clean up 1 million gallons of oil, or hydrocarbon-based material, on an immediate basis and can rapidly ramp up manufacturing to meet any requirement, in multiple countries, and has. We have been fully prepared to deploy in response to the Deepwater Horizon disaster since the beginning of the incident. Yet, as noted above, the EPA has actively prevented it.

# 4. If so, does it have application requirements that exceed the window of opportunity?

As stated earlier, both Corexits have narrow time windows of opportunity for application, while OSE II has no time application requirements that exceed any window of opportunity; it can be used as a first and only response method, and has been used and tested and used on all types of oil and hydrocarbon-based material, both fresh and weathered, with no limitations.

# 5. If not, does it have unacceptable environmental requirements, health, and safety risks associated with its use?

As can be readily seen on their labels and Material Safety Data Sheets, both Corexits have egregious health and safety risks. To protect responders, one must wear chem suits and full face respirators. Their EPA toxicity tests show them to be extremely toxic. If spilled, they are to be cleaned up as a hazardous material. And, yet, the EPA has allowed them to be spread in massive amounts throughout enormous areas of the Gulf waters, even though they had a known history of severe adverse health problems in regards to responders in the Valdez spill. Corexit dispersants have no defined or substantiated end point. However, per the Woods Hole Oceanographic Institute tests just completed in March of 2011, it has been proven that both Corexits cause oil to linger longer in the water column and sediment and actually slow down the natural biodegradation processes even more than if no response method at all had been used on the blown out oil.

Conversely, as mentioned above, OSE II is so non-toxic it has been ingested on TV demonstrations to show its safety, and we have videos and numerous photos of contractors and OSEI personnel washing their hands in it with no adverse side effects over the last 22 years. The numerous toxicity tests on the OSEI web site at www.osei.us, under "Technical Library" and the toxicity tests attached show OSE II to be virtually non-toxic. In direct contrast to both Corexits, OSE II has a predictable, substantiated result/end point: CO2 and water, and it achieves this result, regularly, in less than 2 weeks, but usually not more than 4.

# 6. If it has special operational requirements, is there an identified specialist (technical contact) who can provide timely advice on its effective use?

Both Corexits have limited windows, and need special, costly equipment to apply it in order to protect responders. However, an example of the ease with which OSE II can be applied is that the OSEI Corporation showed some Louisiana fishermen how to measure and apply OSE II effectively in less than 15 minutes of training. And no hazardous material suits or respirators or hazardous material training were required. All equipment needed to apply OSE II is readily available, and quickly obtainable. There are numerous OSEI Corporation associates that are available on immediate notice to consult on spills, as needed.

These essential NOAA guidelines have been ignored by the RRT 6. It is obvious that none of these points were honestly considered when choosing what products to use for the Deepwater Horizon oil cleanup response, and it is the lack of its use that has resulted in the extraordinarily inadequate and disastrous consequences.

The guide also includes specific instructions related to what should be considered regarding toxicity levels when choosing which products to use. Both Corexits completely violate the guide's rules related to toxicity, while OSE II fully aligns with its toxicity guidelines.

BP's "BioChem Strike Team" testing at LSU has now shown that OSE II reduced more of the toxic components of the oil (PAH's) over any other product tested by a significant value; per the results that were sent to me, it appears to have been over 65% better than the next best product.

### THE EPA'S INTENTIONS TO HONESTLY TEST FOR NON-TOXIC, ALTERNATIVE SOLUTIONS TO COREXIT ARE SUSPECT

A testing process began in June of 2010 ostensibly to isolate non-toxic, better alternatives to Corexit. The stated protocol was that, after successful lab tests on several alternative products were conducted at LSU, final tests on Deepwater Horizon oil in the field were to be the ultimate deciding factor for EPA/RRT approval for their implementation.

After stringing along for over a year some companies with alternative products by slowly doing tests in a lab at LSU (tests that should have taken 2 to 4 weeks took 9 months), the EPA arbitrarily decided, on April 14, 2011, not to follow through with the field demonstrations although they did not inform us of their decision. LA DEQ, in an effort to prevent their state's natural resources from continued destruction by Corexit, went to battle to get the field demonstrations done and the EPA changed their position and agreed, on April 21, 2011, to allow a field demonstration, but with one caveat: they would (once again) not use any product that contained a surfactant. As OSE II is a product of those being tested, that contains a surfactant, this was obviously intended to prevent OSE II from being included in the field tests. As clearly explained above, and to the EPA a few weeks prior, refusing to allow OSE II to do the field tests because it has a surfactant has no scientific validity and is baseless as a justification for not using OSE II. However, instead, they chose four of the ten products tested by BP in the LSU lab for the field demonstration that they knew would not work.

The LSU tests and their own prior EPA tests show these products to be very poor at reducing the most toxic components of the oil, the PAH's. Despite the fact that OSE II's results in the LSU lab tests were irrefutably better than any other product at handling the PAH's, the EPA/RRT decided not to include it in the field demonstrations. The EPA has tested 3 of these products and OSE II in the past, in an estuarine environment (see attached EPA estuarine test) (also see attached EPA fact sheet), and OSE II was the only product that proved it could work.

The fourth product has a toxicity value demonstrated to kill 50% of Menidia<sup>1</sup> in 96 hours when they come in contact with 25.33 parts per million

<sup>&</sup>lt;sup>1</sup> **Menidia** beryllina (a small fish) are the current EPA-approved marine vertebrate used in both acute and chronic toxicity testing.

of the product, and 50% of Mysidopsis<sup>2</sup> die within 48 hours when coming in contact with 25.33 parts per million.

The fourth product's EPA toxicity tests show it to be as toxic as the two Corexits, while only reducing 10% of the toxic part of the oil, the PAH's, meaning it is relatively valueless, per the NOAA guidelines and common sense.

The EPA had to have known that all 4 products chosen would fail the tests, based on their earlier tests, when they chose them to be applied in a field demonstration. The only logical reason for them doing this is to help them to justify their use of Corexit, ie, "We tried bio remediation and it didn't work." I clearly pointed this out to them in a letter to LA DEQ/RRT shortly after their decision to only test these 4 products in the field came out, and, again, presented the reasons why OSE II should be allowed to participate in the field tests. A few days after my letter was received, Dr. Tsao notified OSEI, and presumably the other bio remediation companies, that the RRT/EPA had, once again, just changed their mind and decided not to run the field tests at all, with no reason given. The EPA has certainly been consistent over the past 21 years in its effort to thwart the implementation of OSE II.

OSE II is the only product the EPA tested in the estuarine environment that showed promise, and, based on OSEI's long history with the EPA, I can only assume that the reason they arbitrarily stopped the field test was to prevent OSE II from demonstrating how effective it would be in completely cleaning up the estuarine environment. In the earlier EPA test done in an estuarine environment in 2002, OSE II had activated the natural bioremediation process when none of the other products had shown any positive results. At that point, the EPA arbitrarily decided to stop the tests and not allow them to complete; again, with no reason stated.

The EPA and NOAA have again repeated the statement they would not allow a product with a surfactant in an RRT meeting and put it in writing in a Coast Guard RRT letter. And yet, as explained above, they have not only allowed the use of Corexit for 22 years, which has surfactants, but have allowed it to be the only product with "pre approval" status, meaning when an oil spill happens, the responsible party does not have to get a permit to immediately begin using it. It also means they have no other option, initially, when there is a spill, because the EPA has never allowed any other product to be given pre- approval.

There are different types of surfactants. OSE II has safe, non-toxic bio surfactants/surfactants, and Corexit has toxic surfactants. Yet the EPA does not disqualify Corexit. So, to say that the reason OSE II is not being allowed to be utilized in the Deepwater Horizon disaster, or even demonstrated in a field test because it has a surfactant is disingenuous in the extreme.

<sup>&</sup>lt;sup>2</sup> Mysid shrimp, also standardly used in toxicity testing

The EPA has defamed the OSEI Corporation's product, OSE II, through the use of scientifically baseless excuses to stop its use, spreading the false impression to others not informed about OSE II that there is something wrong with it and/or that it does not produce the results it has fully proven to produce. The EPA/NOAA and other members of the federal government on the RRT have used baseless concerns, statements that defy all the tests they have to hand in regards to OSE II: their own successful use of OSE II on the Osage Indian reservation, the numerous demonstrations of OSE II on the OSEI web site under "News Videos" for the BP spill, photos showing OSE II's exact process on a crude oil spill for Texaco (entitled "Crude oil spill" under "photos" on the OSEI Corporation web site), a 223 page technical library on our web site with numerous efficacy, toxicity, and other tests to try to overcome the EPA's arbitrary hurdles for the past 22 years. And yet they still continue to make statements that have no scientific basis, which the OSEI Corporation can discredit easily with either test results, videos, photos, or experience.

It would be easy to make some rather snide comments about all of this because refusing to allow the use of OSE II "because it contains [non-toxic] surfactants" is comparable to saying "We won't allow the use of OSE II because it has water in it." This situation would be laughable if there weren't so many people's lives being destroyed by the inadequate, yet still reversible, cleanup response and the broad scale destruction of the environment and marine life of the Gulf wasn't being so negatively impacted. The fact that the EPA/NOAA and other government officials are violating their oaths of office, their charters, and the Clean Water Act by continuing to act in this manner places them in a very untenable position.

### EPA CLAIMS TO US CONGRESSMAN THEY HAVE NO PROTOCOL FOR THE USE OF BIOREMEDIATION

On Thursday, June 17, 2011 a senior representative from the EPA stated to a US Congressman that the EPA has no protocol for the use of bioremediation. In fact, if you go to 40 CFR part 300 subpart J, you will see under "Bioremediation" there is nothing there; the page is blank.

However, OSEI obtained in 1992 the EPA's formal Bioremediation protocol, which was completed after extensive, taxpayer-funded testing. We are in the process of locating that in our warehouse archives of over 22 years of information and documentation from the EPA and other federal agencies. In the meantime, attached is the protocol developed by the EPA in conjunction with RRT VI (the lead RRT for the BP Deepwater Horizon blowout). The attached document is a copy of the last draft before the final one was completed. The protocol document was completed in January of 1992 and is written on EPA's letterhead.

The document tracks similarly with the dispersant protocol, except it pertains to bioremediation. This document has existed for approxi-mately 20 years, however the EPA is now denying that it exists, and it has been left out of the Code of Federal

regulations. It is interesting that the completion of the document was during the same period the EPA/NETAC developed the NCP listing protocol, as well as the open water testing procedure for bioremediation products, and the monitoring program for bioremediation products. This document was shelved at the same time Exxon's attempt at a bioremediation product (Inipol EAP 22) was proven to be ineffective and very toxic. Chemically it is basically the same as Corexit with added nutrients.

There is a means and a procedure to use OSE II/bioremediation on a spill, which the EPA has not acknowledged or utilized, despite the fact that the magnitude of this BP disaster calls for every effective tool possible.

#### **EPA VIOLATES STATES' RIGHTS**

As there has been, since the beginning of this disaster, a safe, effective means to protect the natural resources and people of the Gulf from the onslaught of toxic oil and the unnecessary use of toxic dispersant, the EPA and NOAA as well as the other federal agencies involved, have violated the Gulf States' Constitutional right to protect their natural resources and the health, safety and welfare of their citizens, forcing these people to endure hardships that were and continue to be preventable by simply granting the States' and BP's requests to utilize OSE II.

Representatives from the State of Louisiana had OSE II's information thoroughly vetted by May 2010 and stated that they had come to the conclusion that OSE II had merit. Some of these same people sit on the RRT and on the EPA's science panel. Governor Jindal attempted to have OSE II demonstrated on Chandelier Island on May 6, 2010, the day the oil first reached the Louisiana barrier islands, but the EPA stopped the demonstration from occurring and sent a veiled threat, through Dwight Bradshaw of the RRT to me, stating that if I followed through on Governor Jindal's request for the field demonstration of OSE II "there would be consequences." The RRT became culpable on that day for all the subsequent damages to the Louisiana coastline.

# A SUCCESSFUL FIELD DEMONSTRATION OF OSE II ON DEEPWATER HORIZON OIL HAS BEEN PERFORMED

The Waveland Beach, Mississippi demonstration with Region IV EPA officials present should have alleviated all concerns in regards to OSE II, when you take into consideration the numerous toxicity tests performed on OSE II, the numerous efficacy tests, the EPA NCP tests, and now BP's Deepwater Horizon oil spill test at LSU.

How the Waveland Beach demonstration came about was that Mississippi State Senator Gollot ordered OSEI staff and the Mississippi DEQ to find a place to perform a field demonstration of OSE II. They decided to do it on a beach and in a marsh area of Waveland Beach. RRT 4 personnel and others were notified of the time and place. The EPA representatives from RRT 4 showed up at the demonstration but, for some reason, started to leave before it was completed. As they were leaving, they told Mark Rettig, an OSEI associate, there was "no way RRT would allow any non-indigenous bacteria to be used in their Gulf waters." When Mark told them that OSE II doesn't have any microbes in it, they became more interested and decided to stay for the full demonstration.

There were about 50 people there, including Senator Gollot and one other state senator, EPA reps from RRT 4, several officials from Mississippi Bureau of Marine Resources (BMR), several officials from MS DEQ, and several BP contractors as well as several media outlets. The DEQ reps not only observed, but they participated in laying out the geographical application area. The area was partitioned and isolated by booms so that the fate of the oil, once it came into contact with OSE II, could be accurately demonstrated.

The demonstration was done. All in attendance saw OSE II being applied by a simple backpack spray apparatus onto a sandy beach area and a marsh grass area with the protective boom around it. All attendees witnessed the successful first stages of OSE II on BP oil laced with Corexit and which had soaked into the sandy beach and was adhering to the marsh grass. They saw that it took less than 5 minutes for the oil to lift off the sandy beach and the grass. In about 5 more minutes the oil broke into such small particles it began to be difficult to see. Within 2 hours it was very difficult to see any part of the oil at all. It floated on the surface until it was completely remediated. Some of the attendees returned 5 days later and no trace of oil could be found.

Also in attendance for the first day's demonstration was ABC News, who captured the entire demonstration on video and aired it on a local news program later that day.

Note: The EPA has never acknowledged this successful demonstration of a non-toxic product on BP's oil, other than to repeatedly imply that it wasn't legal to do this demonstration. I have had to repeatedly point out to them that MS DEQ and Mississippi State Senator Gollot requested and authorized it; that EPA officials were there and witnessed it, and that at the beginning of the demonstration Senator Gollot openly challenged the officials there to stop the demonstration if they had a problem with it, and that no one stepped forward.

This was the first time during the Deepwater Horizon catastrophe that OSE II had an opportunity to prove in a live field test on a Gulf sandy beach and marsh that what the earlier LSU tests from 2009 as well as the EPA/NETAC tests from 1992 showed would play out in this type of environment. Despite the success of the test, the RRT/EPA never acknowledged or acted upon it. [Go to <a href="http://osei.us/819">http://osei.us/819</a> to view the WLOX news program about the OSE II demonstration at Waveland Beach.]

If there was a sincere desire to clean up the contaminated waters and shoreline, this demonstration should alleviate any possible concerns because, after 11 months since the demonstration, the protective booms were removed and the marsh grass is completely free of oil and shows no signs of stress or deterioration from the spill. The sandy beach area where OSE II was applied was dug down into and there were

no tar balls or visible oil residue. Just 25 yards away, as of June 15, 2011, on the other side of the concrete drainage area you can dig down into the sand and discover tar balls and oil residue. See the pictures below that show the difference in the EPA-allowed response (Corexit) and the use of OSE II on the sandy beach after 11 months.

The following pictures show the marsh grass at Waveland Beach, Mississippi where OSE II was applied. Notice how the grass shows no distress and is completely free of oil. Then compare this to the pictures a year later showing how the area not treated with OSE II has been negatively impacted by the EPA-authorized response method. The marsh grass shows distress and deterioration. These pictures were all taken on June 15th, 2011, 11 months after OSE II was applied.



Photo above: Waveland Beach Mississippi June 15, 2011. This is the area where OSE II was applied on July 14<sup>th</sup>, 2010. OSE II was applied to the sandy beach on the north side of the concrete drain in order to compare the EPA allowed response with Corexit on the south side of the drain. OSE II cleaned the sandy beach completely, allowing the sand to remain free of oil. The boom protecting this demonstration area was recently removed. Go to this link <a href="http://osei.us/992">http://osei.us/992</a> to see the video of the field application of OSE II at this Waveland Beach site. OSE II creates clean beaches and water and protects US natural resources.

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Photo above: Waveland Beach Mississippi June 15, 2011: This is a closeup of the beach on the south side of the concrete drain, where OSE II was <u>not</u> applied, showing the effects of the EPA-allowed Corexit response. A large amount of oil is still present. Corexit destroys US Natural Resources.

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Photo above: Waveland Beach, Mississippi, June 15, 2011. The swatch of dark-appearing grass is full of oil. OSE II was applied to the marsh grass and sand immediately to the right of that area and resulted in healthy grass and clean sandy beach.

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Photo above: Waveland Beach, Mississippi, June 15, 2011. This picture is just north west of the darkened adversely effected marsh in the previous picture above. The marsh grass is dying off from the EPA allowed response with Corexit. This picture shows deleterious effects of Corexit destroying natural resources and can be compared to the picture above where OSE II was applied to a small area of marsh grass just east of this spot, creating clean, protected US natural resources.

This demonstration absolutely proves there is no legitimate concern related to the use of OSE II and that it should be implemented immediately to begin to reverse the damage that has been done to the shorelines, estuaries, marshes, water column, sea floor, marine life and wildlife of the Gulf by the EPA's inadequate cleanup response to the Deepwater Horizon oil with both Corexits.

The fact is, with the Waveland Beach demonstration, an OSE II field demonstration has already been successfully performed and, predictably, with no adverse effects. The dichotomy between the proven constructive and valuable results of OSE II and the destructive impacts of the two Corexits clearly illustrate how the US EPA/NOAA, and other federal agencies on the RRT needlessly forced the Gulf Coast States of Louisiana, Mississippi, Alabama, Texas and Florida to suffer natural resource damages, unnecessarily exterminated millions of marine animals, pointlessly caused the destruction of thousands of birds, wreaked havoc on Gulf businesses, jobs and the economy, inflicted severe and alarming health problems and even death on massive numbers of Gulf Coast residents and cleanup responders who have begun the slow, painful trek to contracting numerous types of cancer, and ultimately their deaths, which is the second time responders have been given life sentences for helping out in an oil spill (the Valdez spill being the first notable time). All of this was absolutely unnecessary.

### **COMPARING OSE II AND TOXIC CHEMICAL DISPERSANTS**

The EPA/NOAA, and the other federal agencies on the RRT that have arbitrarily thwarted the use of OSE II are now faced with the reality that a side-by-side comparison has been drawn between OSE II's results and the inadequate response of using Corexit. BP, a major oil company, has successfully tested OSE II on this massive spill, requested OSE II's implementation, and the EPA has continued to prevent its use with trumped up, baseless, non-scientific excuses. And this, while an

almost unimaginable amount of harm is being done to the natural resources of the US and health, safety and welfare of US citizens. The EPA/NOAA, and the other federal agency officials involved, are violating their oaths of office, their job descriptions, and their agency's charter requirements.

The EPA/NOAA/RRT VI has successful test experience with OSE II (EPA/NETAC testing), and successful utilization (Osage Indian Reservation on US navigable waters). The EPA learned, first hand, of 100's of clean ups performed on navigable waters by the US Navy in San Diego Bay over a 3½ year span, with dolphins and whales nearby. There were no adverse effects from the constant use of OSE II over this 3½ year period in San Diego Bay; no dead whales, dolphins, fish or wildlife. This is in direct contradiction to the destruction Corexit has caused in the Gulf with EPA's approved response action. When a product has as much use as OSE II has had in a confined bay area such as San Diego Bay, if it had anything in it that would cause adverse reactions to the environment it would have shown up, and dead species would have rolled up on the shore. This continued field experience proves that the trumped-up concerns of the EPA/NOAA and other federal agencies on the RRT's, are unfounded and baseless.

As explained above, EPA reps also witnessed the successful demonstration of OSE II at Waveland Beach, Mississippi. Now, by putting up unscientific and arbitrary road blocks to a highly effective method of oil spill cleanup, they are proving they have a hidden agenda of some kind related to the Deepwater Horizon disaster which does not include cleaning up the ongoing BP spill. The significant spill of over 5,000 gallons of crude oil spilled by Texaco in Electra Texas, where OSE II addressed 100% of the spill, protected the entire eco system and resulted in no dead marine or wildlife, and returned the pond to pre spill conditions in 18 days. This, once again, verifies that the stated concerns and excuses claimed by these federal agencies to justify not using OSE II to handle this catastrophe are insincere and scientifically unreasonable.

OSE II has been used on thousands of spills in foreign countries in both fresh and salt water spills without a single negative impact. It has addressed these spills as a first and only response tool, effectively cleaning up the spilled oil without the carnage and economic losses attendant to the use of Corexit. It's long history of successful implementation is voluminous evidence, again, that the federal agencies' excuses to not use OSE II are baseless, and their negligence shows a complete lack of regard for the oaths of their office and responsibilities to the environment and the public.

#### In Summary:

- 1.The EPA has denied the requests for implementation of OSE II by three State Senators, 1 Governor and the City of Destin, FL.
- 2. The EPA and RRT federal agencies have stopped the use of OSE II with 4

scientifically baseless excuses:

- a) "concerned that OSE II sinks oil" (scientifically baseless and easily refuted with sound science and an actual BP test);
- b) "NOAA will not allow a product with a surfactant" (no scientifically-based reason and easily refuted with sound science and OSE II toxicity tests);
- c) "EPA/NOAA are concerned OSE II may enhance too much indigenous bacteria", (scientifically baseless, and easily refuted with proof, sound science, tests, field use photos, and videos),
- d) DOC (Department of Commerce) who has no scientific background with NOAA states they "will not allow a product with chemical surfactant", (easily refuted with sound science; OSE II toxicity tests on marine species; successful, safe field use for 16,000 spills; Waveland Beach, Mississippi demonstration; and human ingestion of OSE II).
- 3. The EPA/NOAA ignored the Coast Guard letter July 10,2010, which stated "take action with OSE II".
- 4. The EPA, without stating their reason, denied several requests by the LA DEQ to demonstrate or utilize OSE II after the DEQ had done extensive follow up vetting from May 5, 2011 and felt confident with moving forward with OSE II:
- 5. Sometime between May 19 and May 21, 2010, the EPA denied BP's request to use OSE II.
- 6. The EPA has denied BP's request to perform field trials with OSE II, despite the fact that OSE II showed, in tests conducted by BP in LSU labs, that it is, by far, the most effective product. They justified their decision by invoking a baseless, non-scientific reason (OSE II has a surfactant), a disingenuous and fabricated concern that can be easily dispelled by simply reviewing the numerous toxicity tests done on OSE II, all of which show that it is completely non-toxic.
- 7. A successful field demonstration of OSE II on Deepwater Horizon oil was performed at Waveland Beach, Mississippi on the sandy beach and in the marsh grass which proved, once again, that OSE II would effectively and swiftly clean up not only the oil but the toxic chemical dispersant, protecting the public's health, allowing the marine life and the flora and fauna to rehabilitate. This would allow the seafood and tourism industries to recover.

  8. OSE II is extensively used as a first and only non-toxic response tool in other countries to swiftly and thoroughly return impacted areas to their prespill conditions with absolutely no negative downside or "trade offs." It has now cleaned up over 16,000 oil spills. This is in stark contrast to the use of chemical dispersants whose only function is to sink the oil beneath the surface and spread it broadly throughout the water column.

In light of all of the above, I, Steven R. Pedigo the individual, and the OSEI Corporation hereby request the immediate approval of the implementation of OSE II, and that a permit be issued for the use of OSE II on BP's Deepwater Horizon Macondo oil blowout in the waters of the Gulf of Mexico that began, per reports, on April 20, 2010.

Also, in light of all of the above, I, Steven R. Pedigo the individual, and the OSEI Corporation hereby request the immediate permanent pre-approval of OSE II for US navigable waters of Region VI.

Please send confirmation and/or the documents for both formal requests above as soon as possible.

Sincerely, Steven Pedigo